Keysight Technologies
Digital Multimeters

KEYSIGHT TECHNOLOGIES

Unlocking Measurement Insights

Index

Model	Description	Digits of resolution	Measurement speed (reading/s at 4½ digits)	Basic 1-yr DCV accuracy	Basic measurements	Connectivity & software	Page:
U3401A/U3402A	Benchtop DMM, dual display Elegantly simple and affordable DMMs with basic and good capabilities	4½ (U3401A) 5½ (U3402A)	N/A	0.0120%	DCV, ACV, DCI, ACI, 2-wire resistance (4-wire on U3402A), frequency, continuity, and diode	N/A	4
U3606A/U3606B	5.5-digit DMM with built-in 30 W power supply Halves bench/rack-space need for two instruments	5½	26	0.0250%	DCV, ACV, DCI, ACI, 2- and 4-wire resistance, frequency, continuity, diode, and capacitance 30-W with four output ranges, OVP/OCP, auto scan/ramp and square wave generator	USB 2.0, GPIB	5
34450A	5.5 digit bench digital multimeter OLED dual display	5½	190	0.0150%	DCV, ACV, DCI, ACI, 2- and 4-wire resistance, frequency, continuity, diode, capacitance, and temperature	USB 2.0, Serial Interface (RS-232), GPIB BenchVue software enabled (page 25)	6
34460A/34461A	Bench/System DMM Graphical color dual-line display with histogram and trend charts	6½	300/1000	0.0075/0.0035%	DCV, ACV, DCI, ACI, 2- and 4-wire resistance, frequency, period, continuity, diode, temperature, capacitance	USB, LAN/LXI Core, GPIB, BenchVue software enabled (page 25)	7
34465A	Bench/System DMM Includes 34461A features plus data logging, digitizing and auto calibration	6½	50,000	0.0030%	DCV, ACV, DCI, ACI, 2- and 4-wire, resistance, frequency, period, continuity, diode, temperature, capacitance, DC ratio	USB, LAN/LXI Core, GPIB optional, BenchVue software enabled (page 25)	8
34470A	Bench/System DMM Includes 34461A features plus data logging, digitizing and auto calibration	7½	50,000	0.0016%	DCV, ACV, DCI, ACI, 2- and 4-wire, resistance, frequency, period, continuity, diode, temperature, capacitance, DC ratio	USB, LAN/LXI Core, GPIB optional, BenchVue software enabled (page 25)	8
34401A*	Bench/System DMM Industry standard for accuracy, speed, measurement ease and versatility	6½	1000	0.0035%	DCV, ACV, DCI, ACI, 2- and 4-wire resistance, frequency, period, continuity, and diode.	GPIB, RS-232, DMM Connectivity BenchVue software enabled (page 25)	9
34410A/34411A*	Bench/System DMM, dual-line display Highest through-put of benchtop DMMs	6½	10,000 (34410A) 50,000 (34411A)	0.0030%	DCV, ACV, DCI, ACI, 2- and 4-wire resistance, frequency, period, continuity test, capacitance, temperature	USB, LAN/LXI Core, GPIB, BenchVue software enabled (page 25)	10
34420A	Nanovolt/µΩ meter Very accurate, low-level measurements	7½	250	0.0030%	DCV, DCI, 2- and 4-wire resistance, 2 channel scanning, temperature	GPIB, RS-232, Intuilink software	11

*NOTICE: The 34401A, 34410A, 34411A products will be discontinued December 1, 2016. For migration details visit: www.keysight.com/find/nextgenDMMs

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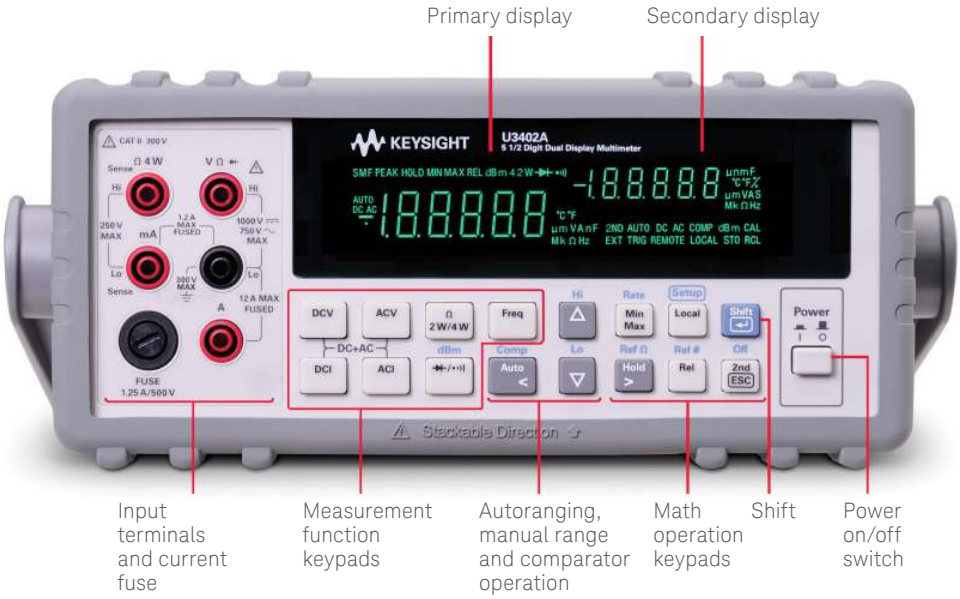
Model	Description	Digits of resolution	Measurement speed (reading/s at 4½ digits)	Basic 1-yr DCV accuracy	Basic measurements	Connectivity & software	Page:
3458A	Bench/System DMM The fastest, most flexible and most accurate multimeter by Keysight. Ideal multimeter for demanding applications	8½	100000 (@ 4½ digits)	0.0008% (0.0004% optional)	DCV, ACV, DCI, ACI, 2- and 4-wire resistance, frequency, period, and temperature	GPIB	12
U1177A/ U1117A	Infrared (IR)-to-*Bluetooth* Adapter Enables *Bluetooth* connection to compatible Keysight handhelds.	N/A	N/A	N/A	N/A	Keysight Mobile Meter Keysight Mobile Logger	13
U1190 Series	Handheld DMM Illuminate test area and measure in safer manner	3½	3	0.5%	DCV, ACV, DCI, ACI, 2- and 4-wire resistance, frequency, period, continuity, diode, capacitance, temperature	N/A	14
U1210 Series	Handheld clamp meter For convenient high current measurements	3½	7	0.5%	DCV, ACV, DCI, ACI, 2-wire resistance, frequency, continuity, diode test, capacitance, temperature	IR-USB, *Bluetooth*	15
U1230 Series	Handheld DMM Retool your expectations with the Keysight U1230 Series handheld DMM	3½	5	0.5%	DCV, ACV, DCI, ACI, resistance, frequency, continuity, diode test, capacitance, temperature	IR-USB, *Bluetooth*	16
U1240B Series	Handheld DMM Feature-rich and robust DMMs	4	7	0.09%	DCV, DCI, ACV, ACI, 2-wire resistance, frequency, continuity, diode test, switch counter, harmonic ratio, capacitance, temperature, 4-20 mA % scale	IR-USB, *Bluetooth*	17
U1240C Series	Handheld DMM Perform test confidently and efficiently	4½	5	0.09%	DCV, DCI, ACV, ACI, 2-wire resistance, frequency, continuity, diode test, switch counter, harmonic ratio, capacitance, temperature, 4-20 mA % scale	IR-USB, *Bluetooth*	18
U1250 Series	Handheld DMM Versatile, high performance DMMs	4½	7	0.025%	DCV, DCI, ACV, ACI, 2-wire resistance, frequency, continuity, diode test, dB, capacitance, temperature, frequency counter, 4-20 mA % scale	IR-USB, *Bluetooth*	19
U1270 Series	Handheld DMM More functionality in a single tool	4½	7	0.05%	DCV, DCI, ACV, ACI, 2-wire resistance, frequency, continuity, diode test, dB, capacitance, temperature, 4-20 mA % scale	IR-USB, *Bluetooth*	20
U1280 Series	Handheld DMM Trustworthy measurements in the palm of your hand	4½	5	0.025%	DCV, DCI, ACV, ACI, 2-wire resistance, frequency, continuity, diode test, dB, capacitance, temperature, 4-20 mA % scale	IR-USB, *Bluetooth*	21
U1401B	Handheld multi-function calibrator/meter Calibrator and DMM in one tool	4½	3	0.003%	DCV, ACV, DCI, ACI, 2-wire resistance, temperature, frequency, diode test, continuity, pulse width, duty cycle	IR-USB	22
U2741A	USB Modular DMM Compact, with plug-and-play simplicity	5½	100	0.02%	DCV, ACV, DCI, ACI, 2- and 4-wire resistance, frequency and period, continuity, diode test, temperature	USB 2.0	23
M9181A	PXI DMM - basic features. Best for functional test when there are multiple tests with range or function changes.	6½	150	.009%	DCV, DCI, ACV, ACI, 2- and 4-wire resistance	PXI module; IVI-C, IVI-COM, LabVIEW, MATLAB drivers. Signametrics compatible driver is also available	24
M9182A/M9183A	PXI DMM - enhanced performance models. Best for functional test when there are multiple tests with range or function changes.	6½	4,500 for M9182A 15,000 for M9183A	.004%	All M9181A measurements, plus frequency/period, capacitance, and temperature. M9183A includes duty cycle, counter/totalizer, and DC source.	PXI-hybrid module; IVI-C, IVI-COM, LabVIEW, MATLAB drivers. Signametrics compatible driver is also available	24
Accessories Compatibility Chart							25 - 26
BenchVue Software							27

Basic + good = elegant simplicity

U3400 Series 4½ and 5½ digit multimeters

Key features

- Up to 120,000 counts resolution
- Up to six built-in math functions – dBm, Relative, Min/Max, Compare, Hold
- Dual display on bright VFD
- Selectable resolutions for variable measurement speeds
- Kensington lock slot security



Key specifications

DCV accuracy	0.02%
Reading speed	N/A
Measurement functions	DCV, ACV, DCI, ACI, 2-wire and 4-wire resistance, frequency, diode, continuity
Type of connectivity	N/A

Technical datasheet:
Literature number 5990-3970EN

Ordering information

U3401A 4½ digit dual display digital multimeter
U3402A 5½ digit dual display digital multimeter

Each U3400 Series includes:

- Quick start guide
- Product reference CD
- Certificate of calibration (CoC)
- 34138A test lead kit
- AC power cord

Options:

- U3400A-100 USB to RS232 cable
- U3400A-1CM Rack mount kit
- U3400A-1CN Dual flange kit

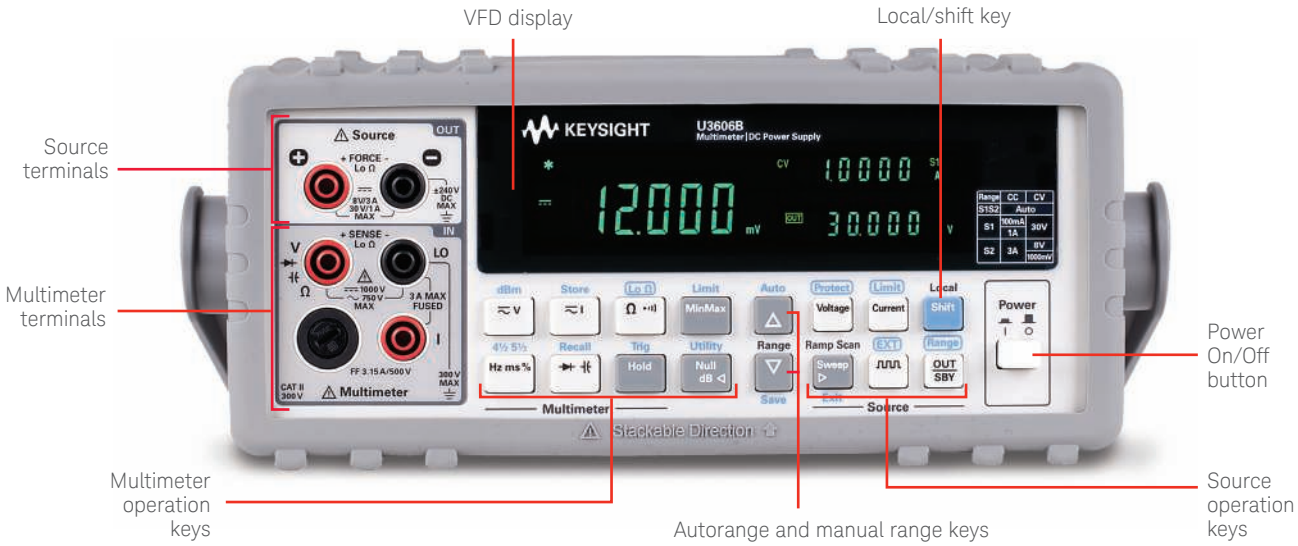
Two instruments in one

U3606A/U3606B multimeter|DC power supply

Key features

Full-featured DMM
- 8 built-in math functions
- 120,000 counts resolution
- 4-wire mΩ measurement with 0.001 mΩ
- resolution

Full-featured DC power supply
- 30 W, 30 V/1 A, 100 mA/30 V, 8 V/3 A and
- 1000 mV/3 A ranges
- OVP and OCP load protection
- Auto ramp and scan for multi-level DC bias testing
- Up to 4.8 kHz square-wave output



Key specifications

DCV accuracy	0.025%
Reading speed	26 readings/second
Measurement functions	DCV, ACV, DCI, ACI, 2-wire and 4-wire resistance, frequency, diode, continuity, and capacitance
Type of connectivity	GPIB, USB 2.0

Technical datasheet:
Literature number 5991-2849EN

Ordering information

U3606A 5½ digit digital multimeter|DC power supply
U3606B 5½ digit digital multimeter|DC power supply

Each unit includes:
- Quick start guide
- Product reference CD
- Keysight Technologies, Inc. IO Library Suite
- Certificate of calibration
- U8201A combo test lead kit
- USB 2.0 high-speed type A to type B cable
- AC power cord

Turbo charge your measurements with one of the fastest tools in its class

34450A bench digital multimeter

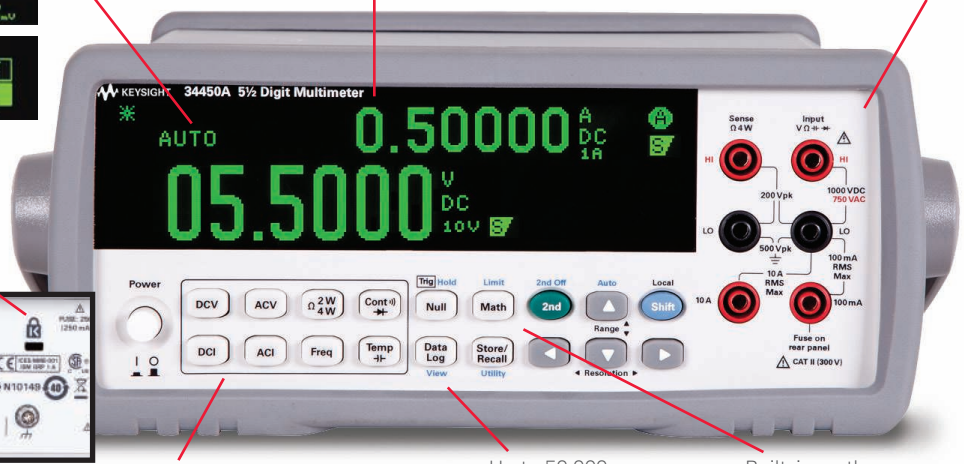
Key features

- Fast reading speed up to 190 readings/sec
- Multiple connectivity options – USB 2.0, Serial
- Interface (RS-232) and GPIB
- Up to 50,000 memory points for data logging
- Built-in histogram function
- With Fluke 45 and Fluke 8808A code compatibility

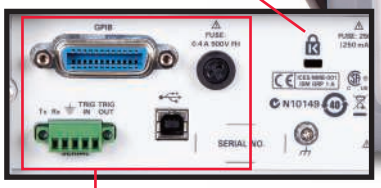
5.5 digit OLED dual display allows clear and quick view of measurements

Fast 190 readings/sec and 0.015% DCV accuracy to help you achieve throughput breakthrough

Input terminals



Kensington lock to better secure the unit



Multiple choices of connectivity and trigger in/out capability for production data analysis

Eleven measurement functions

Up to 50,000 memory points for data logging and histogram function

Built-in math functions

Key specifications

DCV accuracy	0.015%
Reading speed	190 readings/s
Measurement functions	DCV, ACV, DCI, ACI, 2-wire and 4-wire resistance, frequency, diode, continuity, capacitance, temperature
Type of connectivity	USB 2.0, Serial Interface (RS-232) and GPIB

Technical datasheet:
Literature number 5991-1133EN

Ordering information

34450A 5½ digit dual display digital multimeter

Each 34450A includes:

- Test lead kit
- Power cord
- USB interface cable
- Quick start guide
- Product reference CD
- Keysight IO Library Suite CD-ROM

Upgradable options:

- 3445GPBU GPIB connectivity upgrade
- 3445MEMU 50,000 memory points upgrade for data logging
- BenchVue software enabled

The new standard for uncompromising performance in bench and system test

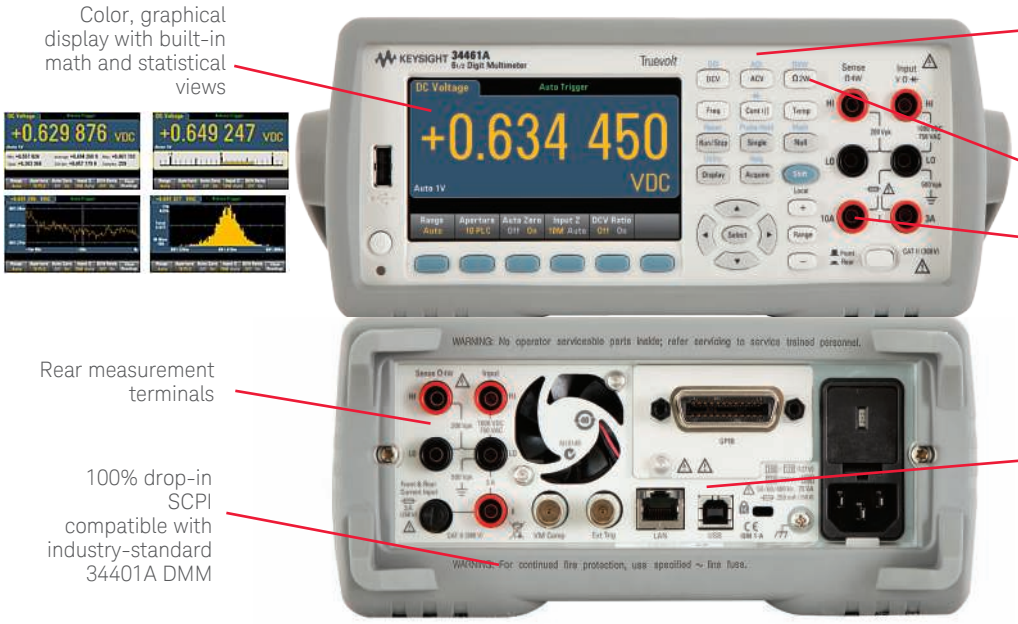
34460A/34461A 6½ digit Truevolt DMMs

Key features

Display DMM results in ways you never have before
- Color, graphical display with built-in bar chart, histogram, trend (34461A only), math, and statistics
- Save and document your DMM's data from your PC, mobile device, or IO of choice

Measure with unquestioned Truevolt confidence
- Digital AC, lowest measurement noise, ISO/IEC derived and compliant specifications
- 1000 V max voltage input, 3 A/10 A (34461A) max current input

Move to the next generation 34401A DMM with 100% assurance
- Industry's only 100% drop-in, SCPI compatible replacement for the Keysight 34401A DMM (34461A)



Key specifications

DCV accuracy	0.0075/0.0035%
Reading speed – 4½ Digits	300/1000 readings/s
Measurements	DCV, ACV, DCI, ACI, 2- and 4-wire resistance, frequency, period, diode, continuity, temperature
Type of connectivity	USB, LAN/LXI Core (Option on 34460A, Std on 34461A) GPIB (Optional)

Technical datasheet:
Literature number 5991-1983EN

Ordering information

34460A 6½ digit, basic Truevolt DMM
34461A 6½ digit, 34401A replacement, Truevolt DMM

Upgradeable options:
- 3446ACCU – Accessory kit for 34460A (documentation, test leads, USB cable)
- 3446GPBU – GPIB user installable interface module
- 3446LANU – Enable rear panel LAN/LXI web interface, external triggering for 34460A
- 3446SECU – Enable NISPOM and file security
- BenchVue software enabled (see page 25)

The new standard for uncompromising performance in bench and system test

34465A 6½, 34470A 7½ digit performance Truevolt DMMs

Key features

Get more insight quickly

Truevolt DMM's graphical capabilities such as trend and histogram charts offer more insights quickly. Both models also provide a data logging mode for easier trend analysis and a digitizing mode for capturing transients.

Low-current measurements

The ability to measure very low current, 1 µA range with pA resolution, allows you to make measurements on very low power devices.

Maintaining calibration

Auto calibration allows you to compensate for temperature drift so you can maintain measurement accuracy throughout your workday.

Color, graphical display with built-in math and statistical views
14 Truevolt measurement functions
Familiar access to all measurements and set-up
10 A current measurement capability
Rear measurement terminals
I/O: USB, LAN/LXI Core, GPIB (optional)
SCPI compatible with industry-standard 34401A DMM
KEYSIGHT 34470A 7½ Digit Multimeter
+1.123 456 8 VDC

Key specifications

DCV accuracy	0.0030/0.0016%
Reading speed – 4½ Digits	50,000 readings/s
Measurements	DCV, ACV, DCI, ACI, 2- and 4-wire resistance, frequency, period, diode, continuity, temperature capacitance, DC ratio
Type of connectivity	USB, LAN/LXI Core GPIB (Optional)

Technical datasheet:
Literature number 5991-1983EN

Ordering information

34465A 6½ digit, performance Truevolt DMM (34410A/11A replacement)
34470A 7½ digit, performance Truevolt DMM

Upgradeable options:

- 3446GPBU – GPIB user installable interface module
- 3446SECU – Enable NISPOM and file security
- 3446DIGU - Enable digitizing and advanced triggering
- 3446MEMU - Enable 2 million readings of memory
- BenchVue software enabled

Uncompromising performance for benchtop and system testing

34401A 6½ digit multimeter (Replaced by 34461A 61/2 digit Truevolt multimeter)

NOTICE: The 34401A DMM will be discontinued December 1, 2016.
For migration details visit: www.keysight.com/find/nextgenDMMs

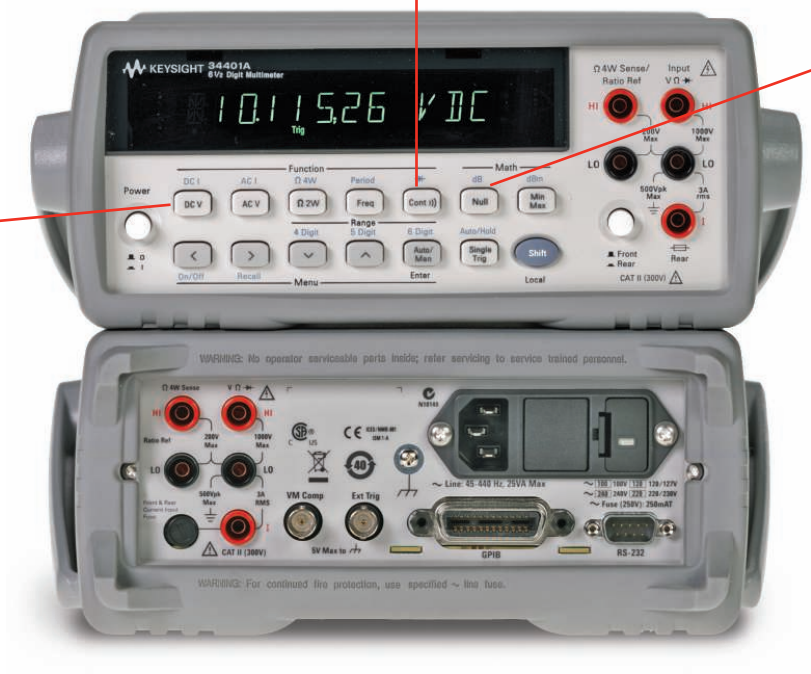
Key features

- 1000 V maximum input
- SCPI commands standard
- Intuilink Connectivity Software included

Perform continuity and diode tests easily with thetouch of a button

Remove lead resistance with Null feature

Measure up to 1000 volts with 6½ digits resolution



Key specifications

DCV accuracy	0.0035%
Reading speed – DCV	1000 readings/second
Measurements	DCV, ACV, DCI, ACI, 2- and 4-wire resistance, diode, continuity
Type of connectivity	GPIB, RS-232

Technical datasheet:
Literature number 5968-0162EN

Ordering information

34401A 6½ digit digital multimeter

Each 34401A includes:

- Test lead kit with probe, alligator and grabber
- Operating manual
- Service manual
- Certificate of calibration
- Test report
- AC power cord

BenchVue software enabled

Affordable yet feature-rich measurement tool

34410A/34411A 6½ digit multimeter

NOTICE: The 34410A/34411A DMMs will be discontinued December 1, 2016.
For migration details visit: www.keysight.com/find/nextgenDMMs

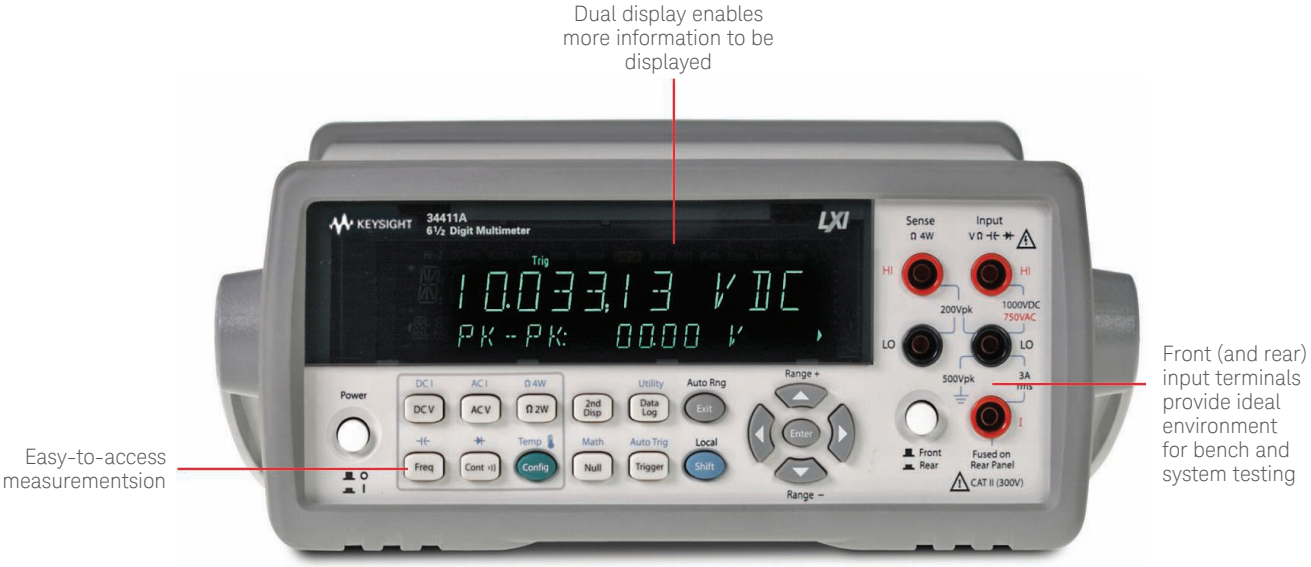
Key features

Keysight 34410A 6½ digit high-performance DMM

- Expanded measurement ranges
- Data logger with 50k reading non-volatile memory

Keysight 34411A 6½ digit enhanced-performance DMM

- All features of the 34410A plus:
- 50,000 readings/s at 4½ digits direct to PC
- 1 million volatile reading memory
- Analog level triggering
- Programmable pre/post triggering



Key specifications

DCV accuracy	0.0030%
Reading speed – DCV	34410A 10,000 readings/s 34411A 50,000 readings/s
Measurements	DCV, ACV, DCI, ACI, 2- and 4-wire resistance, continuity, diode, capacitance, temperature
Type of connectivity	GPIB, USB 2.0, LAN (LXI Core)

Technical datasheet:
Literature number 5989-3738EN

Ordering information

34410A 6½ digit digital multimeter
34411A 6½ digit digital multimeter

Each 34410A/34411A includes:

- Test lead kit with probes and SMT attachments
- Test report
- AC power cord
- USB interface cable

BenchVue software enabled (see page 25)

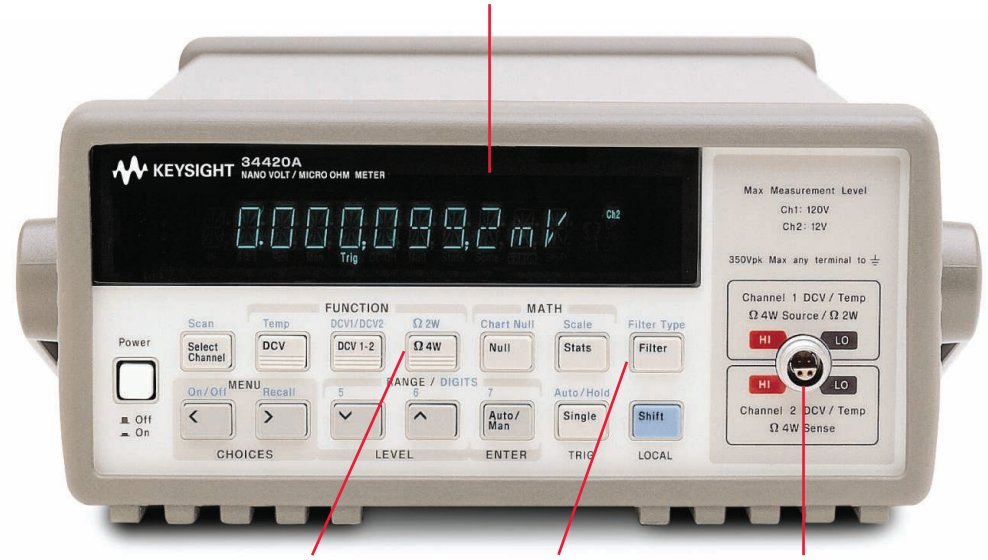
Nanovolt performance at a micro-volt price

34420A 7½ digit multimeter

Key features

- 100 pv/ 100 n1/2 sensitivity
- 1.3 nVrms/8 nVpp noise performance
- Built-in low noise 2-channel scanner
- Direct SPRT, RTD, thermistor, and therrmocouple measurements

7½ digit resolution



Three resistance modes are included:
- Standard
- Low-power
- Voltage-limited for dry-circuit testing

Selectable analog or digital filtering

Built-in low noise two channel scanner with ratio and difference functions

Key specifications

DCV accuracy	0.0030%
Reading speed – DCV	250 readings/s
Measurements	DCV, 2- and 4-wire resistance, temperature
Type of connectivity	GPIB, RS-232

Technical datasheet:
Literature number 5968-0161EN

Ordering information

34420A nanovolt/micro-ohm meter

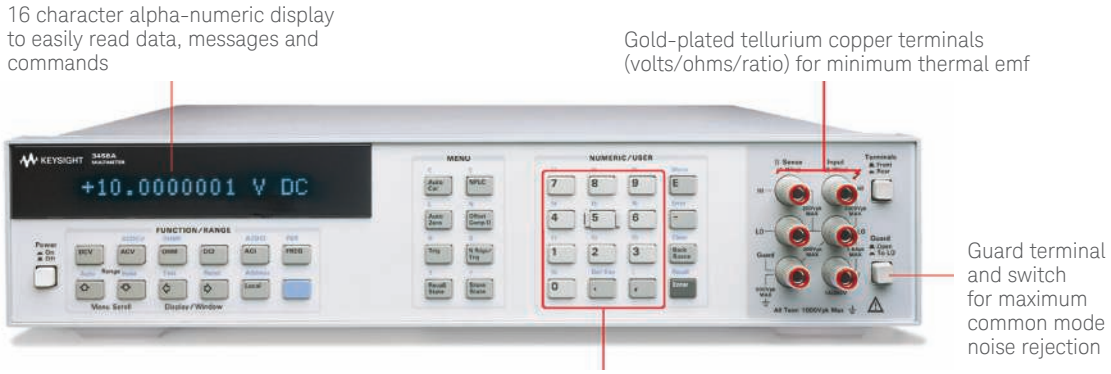
Each 34420A includes:
- Low-thermal input cable (34102A)
- Low-thermal shorting plug (34103A)
- Kelvin clip set (11062A)
- Operating manual
- Service manual
- Quick reference guide
- Test report with cal

Shattering performance barriers of speed and accuracy

3458A 8½ digit multimeter

Key features

- Maximum sensitivity: 10 nV
- Programmable integration times from 500 ns to 1 sec
- Two-source (10 V, 10 kΩ) calibration, including AC
- Self-adjusting, self-verifying auto-calibration for all functions and ranges, including AC
- Multimeter Language (ML) compatible


16 character alpha-numeric display to easily read data, messages and commands
Gold-plated tellurium copper terminals (volts/ohms/ratio) for minimum thermal emf
+10.0000001 V DC
Guard terminal and switch for maximum common mode noise rejection
Shifted keys (f0 through f9) access up to ten user-defined setups

Key specifications

DCV accuracy	0.0008% (Optional 0.0004%)
Reading speed DVC	Up to 100,000 readings/second (41/2 digits)
Measurements	DCV, ACV, DCI, ACI, 2-wire and 4-wire resistance, frequency
Type of connectivity	GPIB

Technical datasheet:
Literature number 5965-4971E

Ordering information

3458A multimeter

Each 3458A includes:

- Test lead set (34118B)
- Power cord
- Operating manual
- Calibration manual
- Assembly level repair manual
- Quick reference guide

Go further with Keysight handheld digital multimeters

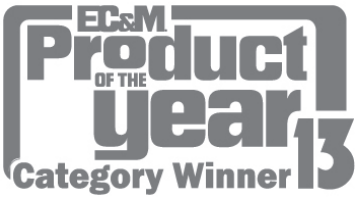
Keysight Remote Link Solution

The remote link is Keysight Technologies, Inc. next generation wireless connectivity. With the new U1117A Infrared (IR)-to-*Bluetooth*® adapter and U1115A remote logging display, you can safely measure, view and log test measurements with an extended range of up to 100 meters. You can now log and monitor data on more display devices such as iOS / Android-based smart devices or on a Windows-based PC. By simply attaching the U1177A / U1117A IR-to-*Bluetooth* adapter to the IR port of a Keysight handheld meter, you'll get instant wireless *Bluetooth* connection setup.

Key features

- Extended measurement distance of up to 100 meters
- View readings of up to four handheld meters simultaneously
- Compatible across all existing Keysight U1200 series handheld meters
- 60,000 points interval logging[1]
- Download logged data to a PC via *Bluetooth* connection[1]
- Micro USB external power port[1]
- Indoor and outdoor viewing modes[1]

1. U1115A



Keysight U1177A Infrared (IR)-to-*Bluetooth* adapter

Keysight wireless remote connectivity solution

Ergonomically designed for safer measurements

U1190 Series handheld clamp meters

Key features

- Vsense to perform non-contact voltage detection[1]
- Built-in LED flashlight to illuminate test area[1]
- Current measurement up to 600 A[2]
- Digital multimeter (DMM) with Resistance, Capacitance[1], DCV, ACV, DCµA[3], ACµA[3], Continuity and Diode test measurements
- CAT III 600 V / CAT IV 300 V overvoltage protection

1. Only for U1192A, U1193A and U1194A
2. Only for U1193A and U1194A
3. Only for U1194A

Unique wire separator to separate and clamp wires from a bundle
Vsense performs non-contact voltage detection[1], DCµA[2], and ACµA[2] current measurements
Capacitance/diode test measurements
Resistance/continuity measurements
DCV, ACV, DCA[2], ACA, and frequency measurement capabilites
Data Hold, Min, or Max recording capability
LCD display with maximum reading of 6,000 counts
Backlight display and built-in LED flashlight[1]
Max Min
Hold
OFF
U1194A
600.0
True RMS Clamp Meter
Shift

1. Exclusive to U1192A, U1193A, and U1194A
2. Exclusive to U1194A

Key specifications

DCV accuracy	0.5+3
Reading speed	3 readings/s
Measurement functions	DCV, ACV, DCI, ACI, resistance, capacitance, diode test, temperature, frequency, continuity
Type of connectivity	N/A

Technical datasheet:
Literature number 5990-8646EN

Ordering information

U1191A clamp meter
U1192A clamp meter
U1193A clamp meter
U1194A clamp meter

Built-in LED flashlight to illuminate test area

Each handheld includes:

- Certificate of calibration
- Quick start guide
- K-type thermocouple (only for U1194A)
- 1.5 V AAA alkaline battery
- Soft carrying case
- Test leads with 4-mm tips
- Test report with cal

Handle big currents – safely

U1210 Series handheld clamp meters

Key features

- Large clamp opening of 52 mm or 2”
- High measurement capability of up to 1000 A for AC, DC or AC+DC
- CAT III 1000 V/CAT IV 600 V overvoltage protection
- Includes full-featured DMM with resistance, capacitance, frequency and temperature functions
- High resolution measurements – measure current as low as 0.01 A

Bluetooth wireless connectivity (optional U1177A Infrared (IR)-to-***Bluetooth*** Adapter required)

Large jaw opening of 2” to test thick current sources

Max or Min recording capability

Capacitance/diode measurement

Temperature and audible continuity functions

High measurement capability of up to 1000 A for AC, DC or AC+DC

Large LCD display with maximum reading of 4000 counts

Peak hold function for in-rush current testing

Manual or auto ranging

Key specifications

DCV accuracy	0.50%
Reading speed	7 readings/s
Measurements	DCV, ACV, DCI, ACI, 2-wire resistance, capacitance, temperature, frequency, diode test, continuity
Type of connectivity	IR-USB and *Bluetooth*

Technical datasheet:
Literature number 5990-5083EN

Ordering information

U1211A clamp meter
U1212A clamp meter
U1213A clamp meter

Each clamp meter is shipped with::

- Test leads with 4-mm tips
- Soft carrying case
- Standard alkaline 9 V battery
- Quick start guide
- Certificate of calibration

Robust and feature-packed

U1230 Series handheld digital multimeters

Key features

- Built-in LED flashlight to illuminate test area
- Flashing backlight as additional visual alert duringcontinuity tests in noisy areas
- Vsense performs non-contact voltage detection
- Data logging capability (stores up to 10 readings)
- IR-to-USB connectivity to transfer data to PC for record

Bluetooth wireless connectivity (optional U1177A Infrared (IR)-to-*Bluetooth* Adapter required)

Flashing light and audible beep during presence of voltage[1]
Bar graph indication and frequency measurement path
Freezes and stores current measurement value
Allows flexibility to change measurement range
Low input impedance to eliminate ghost voltage measurement
Vsense performs non-contact voltage detection[1]
Ease viewing with display backlight or built-in flashlight
Anti-slip rotary dial for easy measurement function selection
Vsense
U1233A
OFF
COM

1.Only applicable for the U1233A model

The built-in flashlight as illustrated

Key specifications

DCV accuracy	0.5%+2
Reading speed	5 readings/s
Measurement functions	DCV, ACV, ACI, DCI, diode test, capacitance, resistance, temperature*, frequency, continuity test *Applies to U1233A only
Type of connectivity	IR-USB and *Bluetooth*

Technical datasheet:
Literature number 5990-7550EN

Ordering information

U1231A digital multimeter
U1232A digital multimeter
U1233A digital multimeter

Each handheld comes with:

- Quick start guide
- Certificate of calibration
- U1167A 4 mm tips probes test leads
- 4 x 1.5 V batteries

Check more, fix more, spend less

U1240B Series handheld multimeters

Key features

- True RMS AC measurement
- Advanced functions – capacitance, temperature, MINMAX recording
- Manual data logging (U1242B only)
- Built-in switch counter, harmonic ratio (U1242B only),dual/differential temperature capabilities (U1242B only)
- CAT III 1000 V and CAT IV 600 V overvoltage protection

Bluetooth wireless connectivity (optional U1177A Infrared (IR)-to-*Bluetooth* Adapter required)

KEYSIGHT U1242B
True RMS Multimeter
MINMAX recording
Resistance: 0.1 Ω to 100 MΩ
Backlight: 2 intensity levels
Diode test switch counter
DCV/ACV: 0.1 mV to 1000 V
Harmonic ratio (U1242B only)
Ambient Temperature
Capacitance: 0.1 nF to 10 mF
ACμA: 0.1 μA to 10 μA
Frequency : 1 Hz to 200 kHz
Manual data logging (U1242B only)
ACmA: 0.01 mA to 1000 mA
ACA: 0.01 A to 10 A
Temperature: –40° C to 1000° C
T1–T2 Differential Temperature (U1242B only)

Key specifications

DCV accuracy	0.09%
Reading speed	7 readings/s
Measurement functions	DCV, ACV, DCI, ACI, 2-wire resistance, frequency, capacitance, temperature, diode, continuity tests
Type of connectivity	IR-USB and *Bluetooth*

Technical datasheet:
Literature number 5989-7040EN

Ordering information

U1241B digital multimeter
U1242B digital multimeter

Each handheld comes with:

- Four 1.5 V AAA alkaline batteries
- Certificate of calibration
- Test probe leads (4-mm tips)
- Quick start guide
- Free test data (Option UK6)

Perform test confidently and efficiently over a longer period of time!

U1240C Series handheld digital multimeters

Key features

- 10,000-count dual display
- Up to 0.09% basic DCV accuracy
- Longer battery life up to 400 hours
- Certified to IP 67 for water and dust protection and tested to withstand a 3-meter (10-ft) drop
- Built-in flashlight
- (U1242C) Vsense for non-contact voltage detection, built-in harmonic ratio, low impedance mode, T1 - T2 differential temperature

Bluetooth wireless connectivity (optional U1177A Infrared (IR)-to-*Bluetooth* Adapter required)

1. U1242C only

Key specifications

DCV accuracy	0.09%
Reading speed	5 readings/s
Measurement functions	Voltage, current, frequency, capacitance, resistance, continuity, diode test and temperature
Type of connectivity	IR-USB and *Bluetooth*

Technical datasheet:
Literature number 5992-0848EN

Ordering information

U1241C digital multimeter
U1242C digital multimeter

Each handheld comes with:
- Test leads (red and black)
- Infrared (IR)-to-USB cable
- Four 1.5 V AAA alkaline batteries
- Quick start guide
- Certificate of calibration

Be well equipped from the start

U1250 Series handheld multimeters

Key features

- High contrast ratio of 2000:1 and wide viewing angle of 160°*
- Built-in square-wave generator and frequency counter
- Includes all essential accessories for electronics troubleshooting
- Smoothing function to stabilize erratic readings*
- Data logging to instrument and PC *with U1253B

Bluetooth wireless connectivity (optional U1177A Infrared (IR)-to-*Bluetooth* Adapter required)

OLED display with approximately 160° viewing angle, and high contrast ratio of 2000:1 for crystal-clear viewing[1]

50,000 count dual display with true-RMS reading capability

SHIFT key and one-stop function keys for easy access

Broad range of measurement functions, including temperature and capacitance

Built-in battery charging for optimum capacity

20 MHz frequency counter[2]

Data logging to internal or external memory

Programmable square-wave generator for stimulation of digital circuits[2]

CAT III 1000 V and CAT IV 600 V overvoltage protection for assurance of your safety while you go about your tasks

1. U1253B only
2. U1252B/U1253B only

Best Value Portable Test Equipment, 2006

A testament to innovation and credibility, 2006

General-purpose instruments category, 2009

Category Winner, EC&M Product of the Year competition, 2009

Key specifications

DCV accuracy	0.25%
Speed	100 readings/s
Measurement functions	DCV, ACV, DCI, ACI, 2-wire and 4-wire resistance, frequency, capacitance, temperature, diode, continuity tests
Type of connectivity	IR-USB and *Bluetooth*

Ordering information

U1251B digital multimeter
U1252B digital multimeter
U1253B digital multimeter

Each U1251B/U1252B includes:

- Four 1.5 V AAA alkaline batteries
- Certificate of calibration
- Test probe leads (4-mm tips)
- Quick start guide
- Free test data (Option UK6)

Each U1251B/U1252B includes:

- Four 1.5 V AAA alkaline batteries
- Certificate of calibration
- Test probe leads (4-mm tips)
- Quick start guide
- Free test data (Option UK6)

Technical datasheet:
Literature number 5989-5509EN

Shaped to fit, tailored to perform, built to last

U1270 Series handheld digital multimeters

Key features

- OLED display with 2000:1 contrast ratio and 160 degree viewing angle[1]
- Measure up to 1000 V AC/DC and 10 A (20 A for 30 s)
- Down to –40 °C operating temperature[1]
- Water and dust resistance (IP 54)
- CAT III 1000 V / CAT IV 600 V overvoltage protection

1. With U1273AX

Bluetooth wireless connectivity (optional U1177A Infrared (IR)-to-*Bluetooth* Adapter required)

OLED display ensures clear and distinct display readings

Peak detect records transients as fast as 250 µs

Smart Ω[1] removes residual voltage of up to 1000 mV

Auto diode[1] automatically determines diode polarity

Low Pass Filter (LPF) removes unwanted high frequency signals

Temperature measurement: J type thermocouple –210 to 1200° C[1], K type thermocouple –200 to 1732° C

Z_{LOW}[1] provides both high and low impedance modes to eliminate stray voltages

AC + DC[1] capability

Large knob for ease of use

1. U1272A, U1273A and U1273AX only

Front panel

Hang hole

Probe holder/storage

IR-USB connectivity with optional IR-USB cable

Slim, ergonomic design for better grip

Easy fuse and battery access from battery cover beneath the stand

Back panel

Key specifications

DCV accuracy	0.05%
Speed	7 readings/s
Measurement functions	DCV, DCI, ACV, ACI, 2-wire resistance, frequency, capacitance, continuity, diode test
Type of connectivity	IR-USB and *Bluetooth*

Ordering information

U1271A digital multimeter
U1272A digital multimeter
U1273A digital multimeter
U1273AX digital multimeter

Each handheld comes with:

- Standard test leads
- Test probes with 4-mm tips
- K-type thermocouple and adapter
- 4 x AAA alkaline batteries (for U1271A, U1272A, U1273A)
- 4 x AAA lithium batteries (for U1273AX)
- Certificate of calibration
- UK 6 (test report)
- Quick start guide

Technical datasheet:
Literature number 5990-6425EN

Trustworthy measurements in the palm of your hand!

U1280 Series handheld digital multimeters

Key features

- 60,000-count dual display
- Up to 0.025% basic DCV accuracy
- Longer battery life up to 800 hours
- Certified to IP 67 for water and dust protection and tested to withstand a 3-meter (10-ft) drop
- (U1282A only) Vsense for non-contact voltage detection, square wave output, low pass filter, frequency counter

Bluetooth wireless connectivity (optional U1177A Infrared (IR)-to-*Bluetooth* adapter required)

60,000-count dual display
Data logging capability
Low pass filter (LPF)1
Dust and water protection with IP 67 ratings
Vsense1 red LED indicator for non-contact voltage detection
Frequency counter1
Broad range of measurement functions: voltage, current, frequency, capacitance, resistance, continuity, diode test and temperature
Square wave output1
CAT IV 600 V and CAT III 1000 V overvoltage protection
Remote switch probe (optional)
App

1. U1282A only

Key specifications

DCV accuracy	0.025%
Speed	5 readings/s
Measurement functions	Voltage, current, frequency, capacitance, resistance, continuity, diode test and temperature
Type of connectivity	IR-USB and *Bluetooth*

Technical datasheet:
Literature number 5992-0847EN

Ordering information

U1281A digital multimeter
U1282A digital multimeter

Each handheld comes with:

- Test leads (red and black
- Infrared (IR)-to-USB cable
- Four 1.5 V AA alkaline batteries
- Quick Start Guide
- Certificate of calibration

Calibrate and measure with just one tool

U1401B handheld multi-function calibrator/meter

Key features

- Dual display with bright LCD backlight
- Simultaneous source and measure
- Bipolar voltage and current, square-wave, auto scan and ramp outputs
- Full-span DMM capability, including temperature andfrequency measurements
- Data logging to PC with optional

Robust protective holster
Hold and Min/Max/Avg recordings
Built-in battery-charging capability
Bipolar voltage and current, square-wave, auto scan and ramp
Dual display with backlight
4-20 mA and 0-20 mA percentage scale readout
Easy function access through intuitive buttons and rotary switch
Voltage, current, resistance, temperature, frequency, pulse width, duty cycle, diode and continuity
Simultaneous source and measure
KEYSIGHT
U1401B
Multi-Function Calibrator/Meter
OUTPUT
INPUT
V mA Ω
CAT II 150 V
AC+DC
TRUE RMS

Key specifications

DCV accuracy	0.003%
Reading speed	3 readings/s
Measurement	DCV, ACV, DCI, ACI, 2-wire resistance, temperature, frequency, diode test, continuity, pulse width, duty cycle
Type of connectivity	IR-USB

Technical datasheet:
Literature number 5990-3459EN

Ordering information

U1401B multi-function calibrator/meter

Each U1401B is shipped with:

- Calibrator/meter standard test
- Lead kit
- Yellow test lead for mA simulation
- Protective holster
- Rechargeable battery pack
- AC power adapter and cord (according to country)
- Quick start guide
- Certificate of calibration
- Soft carrying case is included for U1401A

A bench that fits into your bag

U2741A 5½ digit USB modular multimeter

Key features

- Up to 300 VDC with 5½ digit resolution
- Wide measurement ranges: 100 mVDC to 300 VDC, 10 mA to 2 A
- Compatibility with high-speed USB 2.0, USBTMC-USB488 standard
- Standalone and modular capabilities

Key specifications

DCV accuracy	0.02%
Reading speed - DCV	100 readings/s
Measurement	DCV, ACV, DCI, ACI, 2-wire and 4-wire resistance, frequency, temperature, diode, continuity tests
Type of connectivity	USB 2.0

Technical datasheet:
Literature number 5991-0042EN

Ordering information

U2741A digital multimeter

Each U2741A includes:

- 12 V, 2A AC/DC power adapter
- Power cord
- Standard test lead
- USB standard-A to mini-B interface cable
- L-mount kit (used with modular product chassis)
- Keysight USB modular products quick start guide
- Keysight Measurement Manager quick reference card
- Certificate of calibration
- Keysight USB modular products reference CD-ROM
- Keysight automation-ready CD-ROM (contains the Keysight IO Libraries Suite)

Challenge the boundaries of test

M9181A/M9182A/M9183A PXI 6½ digit multimeters

Model	Description
M9181A	PXI digital multimeter, 6½ digit, basic features
M9182A	PXI-H digital multimeter, 6½ digit, high performance
M9183A	PXI-H digital multimeter, 6½ digit, enhanced performance

Comparison of Keysight PXI DMM models

	M9181A	M9182A	M9183A
Resolution		6½ digits	
Maximum reading rate @ 4½ digits	150 readings/s	4,500 readings/s	15,000 readings/s
Maximum transactional speed (single reading interval time)	6.7 ms	222 µs	66 µs
Measurements and functions	DCV, DCI, True RMS ACV and ACI, 2- and 4-wire resistance	All M9181A measurements, plus frequency/period, temperature, and capacitance	All M9182A measurements plus duty cycle, counter/totalizer, DC source, and extended measurement ranges
Basic 1 year DCV accuracy	0.009%	0.004%	0.004%
Floating isolation (CAT II)	Up to 240 V	Up to 300 V	Up to 300 V
Triggering	Immediate	Immediate, analog level, programmable pre/post triggering, PXI trigger bus	
Reading storage	none	Circular buffer, 80 readings	
Connecter capability	cPCI, PXI-1	cPCI, PXI-H, PXI-1	

Software	
Drivers	IVI-C, IVI-COM, LabVIEW, MATLAB
Supported software development environments	Visual Studio (VB.NET, C#, C/C++), VEE, LabVIEW, LabWindows/CVI, MATLAB
Included GUI	Soft front panel
Application code examples	C/C++, Visual Basic

M9181A Technical datasheet and flyer:
Literature number 5990-9035EN (DS)
Literature number 5990-9024EN (FL)

M9182A and M9183A Technical datasheet and flyer:
Literature number 5990-7580EN (DS)
Literature number 5990-6550EN (FL)

Accessories Compatibility Chart

Ordering number	Description	Handheld clamp meters	Handheld DMMs							Bench DMMs											Modular DMM	Handheld calibrator/meter
		U1210 Series	U1190 Series	U1230 Series	U1240B Series	U1240C Series	U1250 Series	U1270 Series	U1280 Series	U3401A	U3402A	U3606A/B	34401A	34410A	34411A	34420A	34450A	34460A/61A	34465A/70A	3458A	U2741A	U1401B
Kits/rack mounts																						
34137A	Deluxe test lead set																			■		
34190A	Rackmount kit											■	■	■	■	■	■	■	■			
34191A	2U dual flange kit											■	■	■	■	■	■	■	■			
34194A	Dual lock link kit											■	■	■	■	■	■	■	■			
34307A	Thermocouple kit												■						■			
34308A	Thermistor kit																	■	■			
E3600A-100	Test lead kit											■										
U1161A	Extended test lead kit	■	■	■	■	■	■	■	■	■	■											■
U1168B	Standard test lead kit	■	■	■	■	■	■	■	■	■												■
U1180A	Thermocouple adapter+lead kit (for U1242B only) (for U1252/53B only) (for U1272A/73/73AX)					■	■		■													
U8201A	Combo test lead kit											■										
U8202A	Electronic test lead kit											■										
Y1133A	Low-thermal external DMM scanning kit												■	■	■			■	■			
Probes/leads/clamps/bocks/shunts/connectors																						
11059A	Kelvin prob set												■	■	■			■	■	■		
11060A	Surface mount device probe												■	■	■			■	■			
11062A	Kelvin clip set										■	■	■	■	■	■		■	■	■		
34103A	Low thermal shorting plug															■						
34104A	Low thermal input connector															■						
34131A	Transit case																	■	■			
34133A	Precision electronic test leads									■	■	■	■	■	■			■	■			
34134A	DC coupled current probe												■	■	■			■	■			
34136A	High voltage probe											■	■	■	■			■	■			
34138A	Test lead set									■	■		■	■	■		■	■	■		■	
34171B	Input terminal block												■	■	■			■	■			
34172B	Calibration short												■	■	■			■	■			
34330A	30 A current shunt									■	■	■	■	■	■			■	■	■		
E2308A	Thermister temperature probe												■	■	■		■	■	■	■	■	
U1115A	Remote logging display	■		■	■	■	■	■	■													
U1117A	Infrared (IR)-to-*Bluetooth* adapter	■		■	■	■	■	■	■													
U1162A	Alligator clips	■	■	■	■		■	■														■
U1163A	SMT grabbers	■	■	■	■		■	■														■
U1164A	Fine-tip test probes	■	■	■	■		■	■														■
U1169A	Test probe leads	■	■	■	■		■	■														■
U1176A	Probe clip light	■	■	■	■	■	■	■	■													■
U1177A	Infared (IR)-to-*Bluetooth* adapter	■		■	■	■	■	■	■													
U1580A	DMM terminal test lead set	■	■	■	■	■	■	■	■													■
U1583B	AC current clamp			■	■	■	■	■	■													

Accessories Compatibility Chart

Ordering number	Description	Handheld clamp meters	Handheld DMMs							Bench DMMs										Modular DMM	PXI modular DMMs	Handheld calibrator/meter
		U1210 Series	U1190 Series	U1230 Series	U1240B Series	U1240C Series	U1250 Series	U1270 Series	U1280 Series	U3401A/02A	U3606A/06B	34401A	34410A	34411A	34420A	34450A	34460A/61A	34465A/70A	3458A	U2741A	M9180 Series	U1401B
Probes/adapters/leads for temperature measurement																						
U1179A	IR connectivity/bracket				■																	
U1181A	Imersion temperature probe (for U1212A/13A only) (for U1194A only) (for U1233A only)		■	■	■	■	■	■	■													
U1182A	Industrial surface temperature probe (for U1212A/13A only) (for U1194A only) (for U1233A only)		■	■	■	■	■	■	■													
U1183A	Air temperature probe (for U1212A/13A only) (for U1194A only) (for U1233A only)		■	■	■	■	■	■	■													
U1184A	Temperature probe adapter (for U1212A/13A only) (for U1194A only) (for U1233A only)		■	■	■	■	■	■	■													■
U1185A	Thermocouple (J-type) and temperature probe adapter (for U1242A only) (for U1252A /53B only) (for U1272A/73A/73AX)				■	■	■	■	■													
U1186A	Themocouple (K-Type) and temperature probe adapter (for U1212A/13A only) (for U1194A only) (for U1233A only)	■	■	■	■		■	■														■
U1586B	Temperature module (for U1233A only)			■			■															
U5404A	Remote test probe for U1280 Series								■													
Carry case/ hanging kit/brackets																						
34131A	Transit case											■	■	■	■	■	■	■				
34161A	Accessory pouch											■				■						
34162A	Accessory pouch											■	■	■	■		■	■	■			
34398A	RS-232 cable, 9-pin (F) to 9-pin (F)											■										
82350A	Interface card, high-performance PCI to GPIB															■						
82357B	USB/GPIB interface															■						
U1171A	Magnetic hanging kit		■	■	■	■	■		■													
U1172A	Transit case (aluminum-clad)		■	■	■	■	■		■													
U1174A	Soft carrying case			■	■	■	■	■														
U1175A	Soft carrying case	■																				
U1178A	Soft carrying case		■																			
U1594A	Hard carrying case								■													
U1595A	Rugged carrying case	■	■	■	■	■	■	■	■													
Power/cables/interface card																						
10833A/B/ C/D/F/G	GPIB cable															■						
34102A	Low thermal input cable														■							
U1170A	Battery charger adapter (for U1250/52/53B only)						■															
U1173A	IR-to-USB cable	■		■	■		■	■														

Linking up your instruments to the PC

Keysight GPIB and Instrument Control Products helps connect your instruments to PC easily, reliably and affordably. From legendary GPIB cables to the one-box connectivity gateway, see how each provides seamless integration of your instrument no matter where they are placed in your system.
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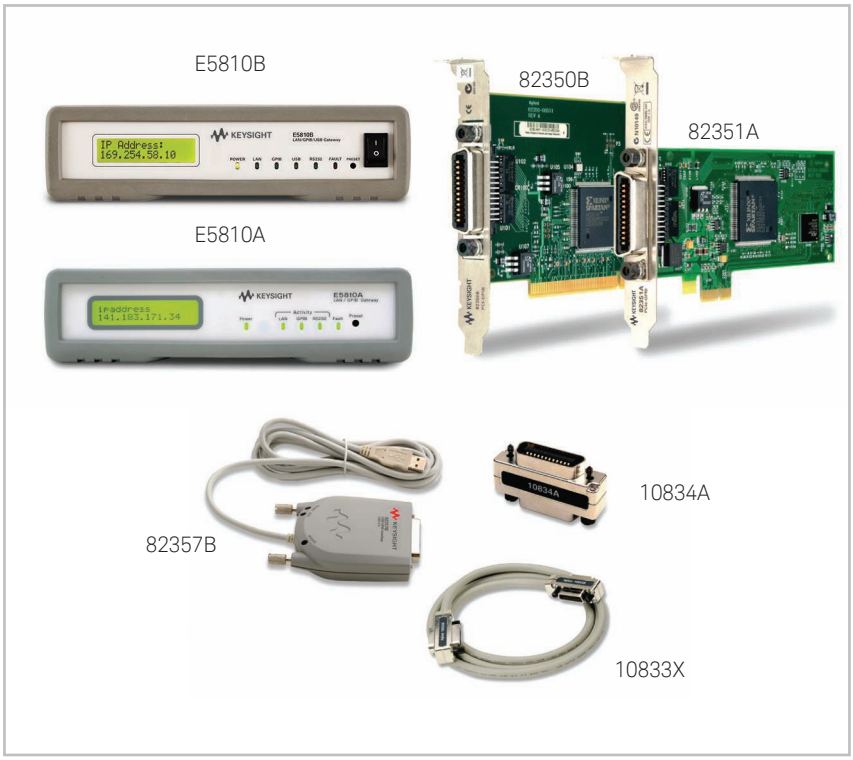

BenchVue software

Data capture simplied. Click. Capture. Done.

BenchVue software for the PC makes it simple to connect, control, capture and view Keysight's DMMs simultaneously with other Keysight bench instruments and with no additional programming.

The Digital Multimeter app within BenchVue enables control of digital multimeters to visualize measurements, perform data logging[1] and annotate captured data (included in model BV0000A). Upgrading to the Pro version (model #BV0001A) provides histograms, digitizer capability and unrestricted data logging with limit checking and alerts.

Download BenchVue software at no cost today.
www.keysight.com/find/benchvue

Keysight handheld meter logger software

Perform measurements with U1210 Series, U1230 Series, U1240B Series[2], U1240C Series, U1250 Series, U1270 Series, U1280 Series and U1450A/ U1460A[3] using Windows-based PC

- Connect up to 10 handheld meters – 5x IR-to-*Bluetooth*
- Adapter (U1177A, U1117A) and 5x IR-USB cable (U1173B)
- Meter view (live measurements) and logger view (graph with zoom and pan) mode
- Manage multi-session data logging within the software and export the data to other software (Microsoft Excel)

Keysight handheld meter logger software for PC can be downloaded from:
www.keysight.com/find/hhmeterlogger

Keysight GPIB and instrument

Control products helps connect your instruments to PC easily, reliably and affordably. From legendary GPIB cables to the one-box connectivity gateway, see how each provides seamless integration of your instrument no matter where they are placed in your system.
www.keysight.com/find/gpib

1. One hour limit in no cost version.
2. For the U1240B Series, you also need to purchase the U1179A IR connectivity bracket to enable IR connectivity.
3. Only allows one connection at a time.

From Hewlett-Packard through Agilent to Keysight

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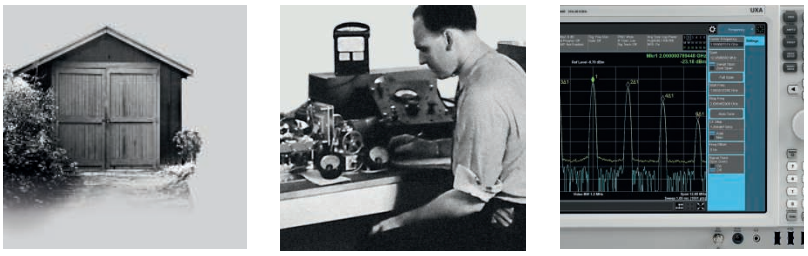

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